** ANTARCTICA [non]. BBCWS annual broadcast to British Antarctic Survey, greeting from families, is next Sat June 21 solstice at 1832 UT on all BBCWS stream/targets, but for Antarctica itself has always been at 2130 UT, and frequencies tested exactly one week in advance; Peter Hanson found them in USAGM monitoring for June 14 at 2130 via 5960 UAE, 9575 Ascension and 13810 Woofferton, so we were ready to try those; not direct for me, but via remotes in Brasil and Falkland Islands. Campo SDR was messed up by local CWQRM overload, but Brasília was getting 9575 and 13810 well. Falkland Islands was too, and in addition, altho in third place, 5960 - why BBC would aim for Antarctica from UAE is a mystery. At Falk: 5960 S7/9, 9575 S9/+15, 13810 S7/9+5. At Bsla: 9575 S6/S7, 13810 S4/S7. At Porto Alegre no better than BA or JBA. Regular BBCWS programmme was apparently used, paid no attn to content (Glenn Hauser, OK, WOR)

** BRAZIL. 11780/6180 into Brazil SDR, 0149 UT June 12, finally something new in the token English segment of RNB, about a ``Festa Junina`` during all of June, origins dating back to ancient pagan times with the summer [sic] solstice. Now three Catholic saints are commemorated, Anthony; then John on 6/24, Peter on 6/29. Celebrated with lots of delicious food in different regions. With music thruout. 0154 restart music, Spanish, called Festival Juniana [?]. Speaker ID self as Ana Pimenta, speaks Spanish but Brazuguese accent; over by 0159, Portuguese ID (Glenn Hauser, OK, WORLD OF RADIO 2299)

** BRAZIL. 6180, June 13 at 0153, RNB/RNA into Pardinho SDR, no English or Spanish but continuous Brazuguese, silly ballgame (Glenn Hauser, OK, WOR)

** BRAZIL. 11780, June 14 at 0151, RNB/RNA VG into Georgia SDR, as token English resumes after missing last night: about Festa São João in Maranhão state, with songs, ``cultural bulletin for today``, drumming. 0154 ID and same in Spanish, both with Ana Pimenta, locutora. 0159 s/off message of 6180 & 11780 but they do not go off immediately, 0200 another program starts in Brazuguese, but chop at 0202* (Glenn Hauser, OK, WOR)

** CANADA. 382 MCW kHz, June 13 at 0614 UT, JBA carrier, in NDB bandscan. Likely YPL, Pickle Lake ON, 500 watts as heard before but tough under current summer/noise conditions. 346 MCW, YXL, SiouX Lookout ON is JB identifiable, the #1 Canadian here. YPL may rate #2 (Glenn Hauser, OK, WOR)

** CANADA. 15034 USB, June 15 at 1455, Trenton Military not off the air, S8 good signal direct, with reports received (Glenn Hauser, OK, WOR) see also! NEWFOUNDLAND

** CUBA. 15230, June 15 at 1457, RHC carrier at S5; if any modulation I cannot detect it. Something`s always wrong at RHC (Glenn Hauser, OK, WOR)

** CUBA. 13650, June 15 at 2325, S9 but suptorted, the absolutely pointless CRI relay in ``Portuguese``, rather fill music or something. Something`s always wrong at RadioCuba. Suptorted = suppressed and distorted. Merging them the other way, ``distressed`` would be misleading (Glenn Hauser, OK, WOR)

** IRAN. We all saw IRIB TV studio getting bombed and newsperson fleeing. This led to some apparently exaggerated assumptions about Iran`s entire broadcasting; via Ron Trotto, IL: https://thedefensepost.com/2025/06/17/iran-tv-radio-disappear-israel/

Before this, but recently, a number of MW frequencies were

reconfirmed.
What about SW? Last sked broadcast of day is 1920-2020 English with bunch of extra, alternate? frequencies in HFCC, 9830, 9835, 11680, 11740, 11850, 11950. I think 11740 was axually heard? UTwente is getting considerable signal on 11740.008+ but barely modulated music, 1945 UT.

Wolfgang Bueschel agrees: ``IRIB gone - no, no. not - still on air. 11740.011 kHz at 2007 UT. PERSIA IRIB Sirjan in English on 11740.011 kHz just received in Athens and Doha Qata, S=9+35dB, requested 1920-2020 UT``

Ron Trotto-WDX4KWI, Virden, Illinois at 2022: ``Wide-band WebSDR in Enschede, the Netherlands heard something very briefly by female very weak then off in mid sentence on 11740. Must have been Israeli propaganda being reported about the antennas. Sorry for that but weak in Europe on the sdr in the Netherlands.``

Ron Howard, Monterey CA: ``UT June 17 - On 11740 in English, via Kiwi SDR remote in Saudi Arabia; 2018 UT, talking about the Iran military, with brief music before 2019*; poor reception. My unedited remote audio attached. Ron``

The IRIB HQ building may have been `destroyed` or heavily damaged, but not the SW transmitter site Sirjan, and they could easily? originate radio from some other studio.

The only other English broadcast registered is at 1520-1620 on 11640 or 11645 and/or 11710. IRIB`s Hebrew broadcast may be of interest: 1150-1220 on 15150 or 15430. I wonder how hard it was to find anti-Israel Hebrew-speaking announcers? (Glenn Hauser, OK, WOR)

** IRAN [and non]. Checking for VIRI`s other English broadcast June 18 at 1520-1620, per HFCC, 11640 or 11645, 11710. Only 11645 has signal into Baghdad SDR, S7/S9 music, +121/126 Hz maybe miscalibrated, modulation breakup but shortly Arabic announcement, so it`s KOREA NORTH VOK as scheduled per EiBi, no VIRI.

I also check the only other English, June 18, into Baghdad remote: At 1916, as Hausa is sked to 1920, 11740.182, S9/+10 open carrier with some hum. By 1919 trace of talk just barely modulated. Let it run past 1920 and 1955, no improvement. However, other reports:

``IRAN - On June 18, from 1915+ UT, on 11740 via Kiwi SDR remote in Cyprus; EZL instrumental music; 1917, announcers and into "{The} Spotlight" program in English; somewhat readable. My remote audio - https://app.box.com/s/gpwsra7o7vw9gxuboedkrmp4a3khrjvq

{Ron`s first 4-minute clip starts with ID ``Iran Radio broadcasting from Tehran``. Second one is 2:20, ID after music. Announcers are quite informal, Americanish accents; ends with ``introduxion to Islamic life-style``}

Remote audio at 1946 UT; nationalistic song in English and announcers -
https://app.box.com/s/dbhn4inigulk0fqo5da6s0stqrnc7yq2
Ron, Monterey, Calif.``

``11740 VOIRI at 1940, visible carrier but only very occasional audio, totally undecipherable. Cannot really tell if audio is music or speech.
Stephen C Wood - KC1QEM, Cape Cod, Massachusetts, Icom 7300 W/, MyAntennas 7510 EFHW, Perseus SDR W/ Terminated superloop 15 x 30, Drake R8B`` (Glenn Hauser, OK, WOR)

** KOREA NORTH. See IRAN [and non] 11740 above

** MALI. 5995, June 12 at 0633, African music S7/S9, so ORTM is on and modulating. A few nights ago it was reported with dead air by Zacharias Liangas: ``5995 Mali? Just a carrier at -80dbm at 0639 with no content. Checked also on the Canaries kSDR showing the same problem. There was also s minimal signoff for 5 seconds -- Z Liangas via kSDR THS GR Jun 6`` -- Also, Wolfgang Bueschel, June 6 at 2015: ``MALI 5995 kHz RTVM Bamako transmitter center site #1, OFF AIR at 2000 UT, noted only co-channel 5995.031, Hwaseong, Korea South.``

At this early hour no confusion with the other 5995, Echo of Hope or N Korean jamming. Also note their token English weekly, Saturdays only, reported by Manuel Méndez, Spain:

``MALI, 5995, Radio Mali, Bamako, 1842-1916, 07-06, African songs, French, ID “La Radio Nationale”, more songs, at 1850 “Magazine en Anglais”, “English Magazine”, news and comments about Mali in English, female, male, at 1900 African songs, Vernacular, comments. 25422. Also heard 0602-0639, 08-06, Vernacular, comments, ID “Radio Mali”. 25422`` (Glenn Hauser, OK, WORLD OF RADIO 2299)

** MEXICO. 760.13, June 16 at 0625, JBA het upon 760.00 WJR which just IDed; not noted before, but a good match at mwoffsets:
``760.125 MEX XEDGO La Mejor (Durango) 2023-10-08``
IRCA Mexican Log shows sked 1300-0500 with 500 watts night, and:
``//XHDGO 103.7FM. Still active on AM 9/24 (logged on local SDR), but operating sporadically, sometimes with distorted audio. Reported off frequency ~760.13 kHz 7/22. ID 8/23 mentions FM call followed by FM and AM frequencies`` (Glenn Hauser, OK, WOR)

** NEWFOUNDLAND. 6604 USB, June 12 at *0620, Gander VOLMET comes on at S8; also 10051 S4, 13270 JBA, 3485 S9+5 in high storm noise level [HSNL]. Less than three hours before permanently shutdown scheduled for 0901. However, Richard Langley, NB reports:

``They were still broadcasting at 1050 UT despite the announcement that removal of the service would be effective at 0901 UT today (12 June). But they did not make an appearance at 1120 on 10051 kHz. So, just a slightly delayed shutdown. 0900 UT would have been 06:30 a.m. in Gander. Perhaps the day shift hadn't arrived for work yet or were still having their coffee. ;-) -- Richard Langley``

So that leaves CHR Trenton Military, elsewhere in Canada, Ontario, which seems irregular on 15034 USB daytime, 6754 USB nighttime (Glenn Hauser, OK, WORLD OF RADIO 2299)

** OKLAHOMA. 1670, June 13 circa 1930 UT, Virtual DJ Radio with rock music, still going peaking at junxion of W OK Garriott & S Van Buren in Enid. For months now, I`ve never found it absent when driving around that area (Glenn Hauser, Enid, WOR)

** OKLAHOMA. 92.1, June 12 at 1701 UT, mono, going from Fox news to ONN news = Oklahoma News Network, no doubt KFXI Marlow (Glenn Hauser, OK, WOR)

** OKLAHOMA. 95.5, June 13 circa 1930 UT, the rock music pirate still going audible for a few blox around W OK Garriott & Cleveland in Enid. Somewhat undermod and with hum. Never hear any announcements during my brief chex (Glenn Hauser, Enid, WOR)

** OKLAHOMA. A few FMs are mixed in with non-OK FM DX at U S A: KMCO 101.3, KXBL 99.5, KTGX 106.1

** OKLAHOMA. 99.7, June 16 at 0410 UT, dead air from KWFF Mustang,

recheck 0413 back on with gunshop ad in OKC.

90.3, June 16 at 0414, KHEV Fairview back on air in mono, after missing June 15 0024+.

89.3, June 16 at 0415, dead air in mono from KIEL Loyal, R. 74 Internationale. 0417 music & talk modulation keeps cutting on and off (Glenn Hauser, Enid, WOR)

** ROMANIA. 15170, June 15 at 2324, S9/+10, in Romanian? Sorta Slavic, sorta Romance - but EiBi sked as RRI in plain old Spanish via Tsiganeshti. Related?:

``hi Glen[n], this is Mike Shockley. I used to report years ago in the 70s and 80s. I was tuning in on my Drake R8 at 2:50 UTC and heard some programming I believe is in Russian; there were time tips at the top of the hour followed by what sounded like either the Russian national anthem or Russian orchestral music. This was on 15170 kilohertz with a fair to good but fluttery signal and lots of noise on the band this evening. Just hoping you can clear this up or make a positive ID. I've really enjoyed your program over the years.``

I replied: ``Mike, Where are you located? It so happens I heard something odd on 15170 a bit earlier tonight: [as above] Russia has been carrying out some tests. HFCC as of 5/21 has this registration, but apparently had not been active, from Petropavlovsk Kamchatsky: ``15170 0200 0600 1,2,6 P.K 250 67 0 288 1234567 300325 251025 D Rus RUS RRS GFC 3894`` -- Maybe can check further`` (Glenn Hauser, OK, WOR)

``Hi Glen{n}, I'm located in Scottsdale, Arizona. That evening the broadcast in question signed off at 0330 UTC. I was also hearing a rapid 4 note signature at intervals during the talk portion of their program. And did not hear it on Monday evening local in the same place. I can imagine it could have been from Petropavlovsk as it had some flutter and the band conditions were noisy that night.``

** SOUTH CAROLINA [and non]. According to Jeff White on Wavescan, the Overcomer Ministry says it will stop radio broadcasting on AM, FM and SW at the end of June. Can no longer be sustained as contributions have been dropping. It will continue on internet, and on a low-power FM under construxion in Walterboro. However, I, gh, find no such CP or existing station at the FCC LMS for that locality.

This of course will open up a great many hours of `available` airtime on the transmitters of WRMI, WWCR, WTWW, WBCQ, WINB, Channel 292 Germany, Spaceline Bulgaria, as well as several USA AM stations. I see nothing whatever on the ministry website about this, rather still plugging `expansion` to 300 kW Bulgarian transmitters. The Radio Log is still dated April 2024 and also included these major AM stations: WWVA 1170 and KXEL 1540, mostly late at night (Glenn Hauser, OK, WOR)

** SPAIN. 15500, June 13 at 2200, token English from SNR is only S9/+10 direct VP in noise level instead of usual bigsig, and the others even worse: 15520 JBA, 17715 S5/S8, 15390 JBA carrier; with K-index of 6 and R1 blackouts per WWV (Glenn Hauser, OK, WOR)

** SPAIN. 15500 S9+10/30, 15520 S9+10, 15390 JBA, 17715 S9+20/30 = stronger on SAm than NAm beam, Mon June 16 at 2200, token English from SNR, preview to be about 600th anniversary of Roma arrival in Spain; both Amy & Marilyn, 2201 news leads with Israel vs Iran attax (Glenn Hauser, OK, WOR)

** SPAIN. 15500, 17715, 15520, 15390, Wed June 18 at 2200, token English from SNR after accurate timesignal, in order of decreasing

strength direct. Preview topic to be some professor at a people`s? university about ME conflict, US involvement. 2201 news starts with day 6 of Israel/Iran war. 2211 about regime change in Iran; Trump unpredictable (Glenn Hauser, OK, WOR)

** TURKEY. 11784.992-, June 13 at 2158, JBA carrier direct so VOT not off the air; at 2225 even into UTwente when measured, it is *very* poor contrary to usual bigsig, S9/+15 in noise level but recognizable. Due to this propagation situation:

``:Product: Geophysical Alert Message wwv.txt
:Issued: 2025 Jun 13 2100 UTC
Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
Geophysical Alert Message
Solar-terrestrial indices for 13 June follow.
Solar flux 143 and estimated planetary A-index 64.
The estimated planetary K-index at 2100 UTC on 13 June was 6.00.

Space weather for the past 24 hours has been moderate.
Geomagnetic storms reaching the G2 level occurred.
Radio blackouts reaching the R1 level occurred.

Space weather for the next 24 hours is predicted to be moderate.
Geomagnetic storms reaching the G2 level are expected.`` (Glenn Hauser, OK, WOR)

** TURKEY. 9875.018, Sunday June 15 at 2048, VOT English, not off the air but S9+20/25 off the back into UTwente, ending `The Pulse of Turkish Foreign Policy`, yawn, and begin `Letterbox`. Cemre says in summer there is dilemma whether to stay inside or outside; enjoyed working from home during COVID and for a while afterwards, apologizes for ``blabbing`` a bit. To the email: 1) Mr Chris ---, Canada, wonders what snax are popular in Turkey? Baklava, Turkish Delight, etc. 2) Jayanta Chakraborty, New Delhi, gets 7275 better than 6165 during the 0300 broadcast. They never point out that 7275 is aimed to NAm, 6165 supposedly for S Asia - needs to be on a higher band at this hour in summer. And a second report from him in June already, same obs, and wants some stamps along with QSL. Maybe. Also asks about a statue being dismantled in Kurdistan? No reply, it seems. 3) Gabriel Gómez, Uruguay, Montevideo, 64-year-old and SWL since 1984, heard Uighur broadcast, way offbeam. 4) Allen? Kumar?, Chennai, India, heard Persian on 9765. 5) --, Munich, Germany. 6) final: Anatoly Klepov, ed. of RUS-DX, applies for June QSL, so a different one every month? Contact info, 2105 outro/intro theme and tune-out (Glenn Hauser, OK, WOR)

** TURKEY. 11785.006-, June 16 at 2158 direct, VOT JBA. At 2235 into UTwente when measured, music at S9+20/30; 2253 s/off as if 1230 on 17620, something`s always awry at Ankara; 2254 IS. 2256 restart IS with German IDs. 2300 accurate timesignal and s/on in German with satellite info and 19m 15350 at 1130; only repeat is supposed to be at 1730 on 9840, not now! Finally wakes up and chops off just before 2309*. Something`s always erroneous at Emirler (Glenn Hauser, OK, WOR)

** TURKEY. 11785.006+, June 17 at 2200 direct, JBA carrier from VOT, but at 2225 into UTwente when measured, S9+20/35 (Glenn Hauser, OK, WOR)

** TURKEY. 11785, June 18 at 2158, NO signal from VOT direct nor at 2209; at 2228 into UTwente, also no signal, nor on 11780, 11790, nor accidentalternate 9875. Something`s always erroneous at Emirler (Glenn Hauser, OK, WOR)

** U S A. 28274 CW, June 15 at 2316, slow beacon, only caught tail and then long pause, no immediate repeat, or fadeout? At 2320 there it is again, DALTON GA WI4L/B EM74. WGB list: ``28274.0 WI4L/B – Dalton GA USA EM74nq – #0 (17 Dec 2024) Note: Ex 28277.8`` QRZ.com: ``WI4L USA flag USA, DAVID H "Dave on CW" STANLEY, 3411 S RIVERBEND RD, DALTON, GA 30721`` -- Lots of certifs on website, nothing about beacon.

Seemed the OSOB; tunearound, no phone and no other beacon until:

28291 CW, June 15 at 2319, AR AR AR DE K5TLJ/B -- WGB list: ``28291.0 K5TLJ/B – Trumann AR EM45rq – #0 (08 Apr 2025) Note: Slow keying start with AR × 3 + de ID – Pwr 5w``. QRZ.com: ``K5TLJ/B USA flag USA, Terry L Jones, 700 Smith St, Trumann, AR, 72472`` -- Nothing on website except an ugly razorback? Heard before. 666 km = 414 miles, almost to Memphis. That`s quite short skip, both these obviously sporadic E, while MUF is below 88 MHz (Glenn Hauser, OK, WOR)

** U S A. 28205 CW approx., June 16 at 2204, Ex10 DE KE4TWI/B EM66. WGB list: ``28204.8 KE4TWI/B – Lebanon TN USA EM66 – #0 (18 Mar 2025) Note: de + ID + incomplete grid + E x 10 – Ant vertical dipole 12w``. Very weak, took multiple passes to copy; an even weaker one less than 1 kHz higher, and not much else. QRZ.com: ``KE4TWI USA flag USA, James W Tewmey, 402 Karlee Court, Lebanon, TN 37087 – KE4TWI/B 28.2048 MHz is on the air near Adolphus, KY (em66) with 10 watts to a vertical dipole`` Adolphus is barely over the state line about 29 miles due north of Lebanon. So Lebanon does not really have another SW station besides WTWW (Glenn Hauser, OK, WOR)

** U S A. 28395 USB, June 16 at 2208, CQ10 from KK4QHN. QRZ.com: ``KK4QHN USA flag USA, Allan C Hood, 312 MCINTURFF RD, Limestone, TN 37681``. Limestone is between Johnson City and Greeneville in eastern TN (Glenn Hauser, OK, WOR)

** U S A. 28209 CW, June 18 at 2203, EEEE VVV N8PVL/B LIVONIA ... WGB list: ``28209.0 N8PVL/B – Livonia MI USA EN82gj – #0 (27 Mar 2025) Note: VVV ID + Livonia + eee – 2 speed CW – HTX-100 Cushcraft AR10 Ringo pwr 5w`` – QRZ.com: ``N8PVL USA flag USA, Christopher E Francis,
37947 5 Mile Rd, Livonia, MI 48154-1547`` with lots of photos, especially printed circuits. Sporadic E, not reaching FM band (Glenn Hauser, OK, WOR)

** U S A. 28297 CW, June 18 at 2205, EEEE DE NS9RC EN61BE CHICAGO. WGB list: ``28297.0 NS9RC – Highland Park IL USA EN62be – #0 (08 Apr 2025) Note: de ID + grid EEE – Half wave vertical pwr 5w – North Shore Radio Club`` – heard several times before. QRZ.com: ``NS9RC USA flag USA, Rob W Orr, NORTH SHORE RADIO CLUB INC, PO BOX 1066, Highland Park, IL 60035`` – Nothing else on 10m but these two beacons, no phones, not even from deep S America; altho CB 27 MHz hopping with hets (Glenn Hauser, OK, WOR)

** U S A [and non]. WORLD OF RADIO 2298 monitoring: confirmed UT Thursday June 12 at 0130 on WRMI 5010, S9/+20 into Lima SDR.

Also confirmed Thursday June 12 from 1631 on SW Radio, Germany, 6160, S9 into DL7APJ remote, only S7 with self-imposed het into UTwente on 6160.000+.

WORLD OF RADIO 2299 contents: Alaska, Algeria, Antarctica non, (Ascension), Australia, Brasil, Canada, Chad non, China, (Colombia), Congo DR, Europe, Falkland Islands, Finland, Germany, India, (Koreas), Lithuania, Mali, Mongolia, Newfoundland, North America, Oklahoma, South Carolina non, Taiwan and non, USA, Vatican, Vietnam, unID;

propagation outlook - (countries mentioned along with others not in order)

WOR 2299 available from 0058 UT Friday June 13
(mp3 stream) https://www.w4uvh.net/wor2299.m3u
(mp3 download) https://www.w4uvh.net/wor2299.mp3
Or via http://www.worldofradio.com/audiomid.html
Also linx to podcast services.
Full schedule: http://www.worldofradio.com/radioskd.html

1300 UT Friday WRMI 15770 [first SW broadcast];
2030 UT Friday IRRS SW via AM Italia 1323v;
2200 UT Friday WRMI 9955 to SSE;
2230 UT Friday SW Radio, Germany 3975;
0300 UT Saturday WTWW 5085 [sometimes];
1430 UT Saturday SW Radio, Germany 6160;
1730 UT Saturday SW Radio, Germany 3975 & 6160;
1930vUT Saturday WA0RCR 1860-AM [1900/2100];
2230 UT Saturday WRMI 15770 to NE;
2300 UT Saturday WTWW 9475 [suspended];
0230vUT Sunday WA0RCR 1860-AM [nominal 0315; as late as 0400];
1900 UT Sunday IRRS SW via AM Italia 1323v;
2130 UT Sunday SW Radio, Germany 3975 & 6160;
2330 UT Sunday WRMI 9455 to NW;
0030 UT Monday WRMI 7780 to SW;
0830 UT Monday SW Radio, Germany 6160 [suspended];
1930 UT Monday SW Radio, Germany 3975 & 6160;
0330 UT Tuesday WRMI 7780 to SW;
1300 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
1400 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
2000 UT Tuesday IRRS SW via AM Italia 1323v;
2330 UT Tuesday WRMI 9395 to NNW;
2330 UT Tuesday SW Radio, Germany 3975;
1930 UT Wednesday SW Radio, Germany 3975 & 6160;
2100 UT Wednesday WBCQ 7490v to WSW;
0130 UT Thursday WRMI 5010 to S;
1630 UT Thursday SW Radio, Germany 6160.

Thanks for financial support this week from Richard Colgan, Austin TX, via PayPal in US funds but not necessarily, to woradio at yahoo.com and says, ``Keep on truckin'``

Or by MO or check on a US bank to:
Glenn Hauser, P O Box 1684, Enid OK 73702 USA (Glenn Hauser, WOR)

** U S A. WORLD OF RADIO 2299 monitoring: almost confirmed first SWBC, Friday June 13 at 1300 on WRMI 15770, JBA, can`t even recognize theme, but in next few minutes intonation seems gh-ish. Probably.

Confirmed Friday June 13 at 2057 the 2030 on IRRS SW via AM Italia, 1322.994+, S8/S9 and stormcrashy into UTwente.

Also confirmed Friday June 13 at 2200 on WRMI 9955, S9+10 direct but JBA undermodulated. At 2227 into Georgia SDR, S9+10 and undermodulated vs OTHR clickery.

Also confirmed Friday June 13 at 2230 on SW Radio, Germany, 3975.007-, S7/S8 and stormnoisy into UTwente. Next:

0300 UT Saturday WTWW 5085 [sometimes];
1430 UT Saturday SW Radio, Germany 6160;
1730 UT Saturday SW Radio, Germany 3975 & 6160;
1930vUT Saturday WA0RCR 1860-AM [1900/2100];
2230 UT Saturday WRMI 15770 to NE;
2300 UT Saturday WTWW 9475 [suspended];

0230vUT Sunday WA0RCR 1860-AM [nominal 0315; as late as 0400];
1900 UT Sunday IRRS SW via AM Italia 1323v;
2130 UT Sunday SW Radio, Germany 3975 & 6160;
2330 UT Sunday WRMI 9455 to NW;
0030 UT Monday WRMI 7780 to SW;
0830 UT Monday SW Radio, Germany 6160 [suspended];
1930 UT Monday SW Radio, Germany 3975 & 6160;
0330 UT Tuesday WRMI 7780 to SW;
1300 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
1400 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
2000 UT Tuesday IRRS SW via AM Italia 1323v;
2330 UT Tuesday WRMI 9395 to NNW;
2330 UT Tuesday SW Radio, Germany 3975;
1930 UT Wednesday SW Radio, Germany 3975 & 6160;
2100 UT Wednesday WBCQ 7490v to WSW;
0130 UT Thursday WRMI 5010 to S;
1630 UT Thursday SW Radio, Germany 6160.
(Glenn Hauser, WOR)

** U S A [and non]. WORLD OF RADIO 2299 monitoring: not confirmed UT Sat June 14 at 0300 on WTWW as 5085 is still off the air.

Confirmed Saturday June 14 at 1435 the 1430 on SW Radio, Germany, 6159.997+, S8 into UTwente with het & pulsing QRM, localized?

Confirmed Saturday June 14 at 1600 on WRN North America stream.

Also confirmed Saturday June 14 at 1732 the 1730 on SW Radio, Germany, S9+5 on 6160.000+ with het and 3975.001+, S8 into UTwente. At 1734 into DL9APJ remote, 6160 is S8/9+10; 3975 is S9+10.

Also confirmed Saturday June 14 after 1930 on WRN North America stream.

Not confirmed Saturday June 14 at 1946 the scheduled 1930 on WRMI webcast only; rather, music.

Confirmed Saturday June 14 at 1944 the 1930v on WA0RCR, 1860 AM, MO, S7 into Jerseyville IL K9VO remote, about 4 minutes into so started circa 1940 UT.

Also confirmed Saturday June 14 at 2000 on WRN Europe stream.

Also confirmed Saturday June 14 at 2230 on WRMI 15770, S9/+15 into UTwente where aimed.

Also confirmed UT Sunday June 15 from 0305 the 0315v on WA0RCR, 1860 AM, MO, S9+12 into N9AZZ IL remote.

Also confirmed Sunday June 15 at 1900 on IRRS SW via AM Italia, 1323v, S9+5 with storm noise. Next:

2130 UT Sunday SW Radio, Germany 3975 & 6160;
2330 UT Sunday WRMI 9455 to NW;
0030 UT Monday WRMI 7780 to SW;
0830 UT Monday SW Radio, Germany 6160 [suspended];
1930 UT Monday SW Radio, Germany 3975 & 6160;
0330 UT Tuesday WRMI 7780 to SW;
1300 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
1400 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
2000 UT Tuesday IRRS SW via AM Italia 1323v;
2330 UT Tuesday WRMI 9395 to NNW;
2330 UT Tuesday SW Radio, Germany 3975;
1930 UT Wednesday SW Radio, Germany 3975 & 6160;
2100 UT Wednesday WBCQ 7490v to WSW;

0130 UT Thursday WRMI 5010 to S;
1630 UT Thursday SW Radio, Germany 6160.
(Glenn Hauser, WOR)

** U S A [and non]. WORLD OF RADIO 2299 monitoring: confirmed Sunday June 15 at 2130 on SW Radio, Germany, into UTwente: 3975.002+ S9+5, and 6160.001- S9/+10. Into DL7APJ remote: 3975.002 S9/+20, 6159.996 S9/+20.

Also confirmed Sunday June 15 at 2330, on WRMI 9455, S9+30 direct.

Also confirmed UT Monday June 16 at 0030 on WRMI 7780, S9+15/35 into S Texas remote. Next:

1930 UT Monday SW Radio, Germany 3975 & 6160;
0330 UT Tuesday WRMI 7780 to SW;
1300 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
1400 UT Tuesday WRMI 9955 to SSE [also web-, phonecast];
2000 UT Tuesday IRRS SW via AM Italia 1323v;
2330 UT Tuesday WRMI 9395 to NNW;
2330 UT Tuesday SW Radio, Germany 3975;
1930 UT Wednesday SW Radio, Germany 3975 & 6160;
2100 UT Wednesday WBCQ 7490v to WSW;
0130 UT Thursday WRMI 5010 to S;
1630 UT Thursday SW Radio, Germany 6160.
(Glenn Hauser, WOR)

** U S A [and non]. WORLD OF RADIO 2299 monitoring: confirmed Monday June 16 at 1931 on SW Radio, Germany, 6160.000+ S9/+15 and 3975.002+ S9+5/10 into UTwente.

Also confirmed UT Tuesday June 17 at 0330 on WRMI 7780, S9+15/30 into S Texas SDR.

Barely confirmed Tuesday June 17 at 1307 the 1300 on WRMI, S9 JBA direct.

Also barely confirmed Tuesday June 17 at 1400 on WRMI 9955, S5 WOR theme JBA direct. At 1426 into Georgia SDR, S9+20 VG.

Confirmed Tuesday June 17 at 2000 on IRRS SW via AM Italia, 1323v, S5/S7 into Parma SDR. As often happens, previous program discussing satellites was chopped off at 1959.5 for ID and then WOR. Next:

2330 UT Tuesday WRMI 9395 to NNW;
2330 UT Tuesday SW Radio, Germany 3975;
1930 UT Wednesday SW Radio, Germany 3975 & 6160;
2100 UT Wednesday WBCQ 7490v to WSW;
0130 UT Thursday WRMI 5010 to S;
1630 UT Thursday SW Radio, Germany 6160.
(Glenn Hauser, WOR)

** U S A [and non]. WORLD OF RADIO 2299 monitoring: ``From: Richard Lemke, Alberta, Canada, the desk of Richard’s listening Post, Radio: JRC NRD-535 HF (30 years of service), Antenna: random long wires in the trees, World of Radio #2299, [WRMI]: 9455 kHz, Static QRN, S6 signal, 2330, 2344, 2345, 2358, June 15 UTC 2025 [Sun]

9395 kHz, 2330-2345, 2357 S5, S7 signal, 2359, June 17 UTC 2025 [Tue]
(Lemke, Richard -AB) Typed, June 18 2025 73’s, Richard Lemke 7:00 am``

Confirmed Tuesday June 17 at 2330 on WRMI 9395, S9+20/30 into Georgia SDR with storm crashes.

Also confirmed Tuesday June 17 at 2331 on SW Radio, Germany, 3975.002+, S8/9+5 into UTwente.

``Hi Glenn. WORLD OF RADIO 2299 confirmed Tuesday 17 June at 2331 on SW Radio Gold, Germany. 73's Alan Roe, Teddington, UK``

Also confirmed Wednesday June 17 at 1931 on SW Radio, Germany, 6160.000+, S9+5/15 and 3975.002–, S9+515 into UTwente.

Also confirmed Wednesday June 17 at 2100 on WBCQ 7490 –75 Hz = 7489.925, S5/S6 into Maryland SDR. Still preceded by TOMBS, not `Pirate Joe Extravaganzo` as for several weeks now with websked not corrected.

Next: Last week, and more than once, the 5010 broadcast was cut short to music fill before 0159. Please check this time.

0130 UT Thursday WRMI 5010 to S;
1630 UT Thursday SW Radio, Germany 6160.

Thanks for financial support this week from Richard Colgan, Austin TX, via PayPal in US funds but not necessarily, to woradio at yahoo.com and says, ``Keep on truckin'``

Or by MO or check on a US bank to:
Glenn Hauser, P O Box 1684, Enid OK 73702 USA (Glenn Hauser, WOR)

** U S A. 5085, June 14 at 0123 & 0138 chex, this WTWW is off again so I suppose won`t be on for WOR at 0300 UT Sat. 5920, however is on at 0147 check (Glenn Hauser, OK, WOR)

** U S A. 9930, June 13 at 2209, TOMBS from WTWW, this time the transmitter with parasitic spurs plus/minus 12.9 kHz from center which is S9+30/40; and also still on // but not synchronized 9980 WWCR (Glenn Hauser, OK, WOR) see also SOUTH CAROLINA [non]

** U S A. Pre-`AAAWWW` chex of WBCQs, June 13 at 2355 into NH SDR: 3265, 5130, 6160, 9330 nothing, 7490 –79 Hz = 7489.921 with FKB only S3/S4, VP in prop disturbance. After 0000 June 14, AAAWWW JBA on 9330 as well, as I listen to stream, beginning with ``when in doubt, start pushing buttons``, so it`s a rerun; never mind.

``:Product: Geophysical Alert Message wwv.txt
:Issued: 2025 Jun 14 0000 UTC
Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
Geophysical Alert Message
Solar-terrestrial indices for 13 June follow.
Solar flux 143 and estimated planetary A-index 66.
The estimated planetary K-index at 0000 UTC on 14 June was 5.67.

Space weather for the past 24 hours has been moderate.
Geomagnetic storms reaching the G2 level occurred.

Space weather for the next 24 hours is predicted to be moderate.
Geomagnetic storms reaching the G2 level are expected.``
(Glenn Hauser, OK, WOR) see also SOUTH CAROLINA non

** U S A. 9395, June 12 at 0618, S9+20 of dead air from this WRMI-6 instead of SMTV, and 9455 WRMI-11 remains off. Something`s odd at Okeechobee (Glenn Hauser, OK, WOR)

** U S A. 15770, June 16 at 1422, 1427, 1449, S8 dead air from WRMI direct; also into Georgia SDR at 1459 until 1459.5 canned ID fires, and 1500 `T2P`. Something odd at Okeechobee. WRMI-9, sked at 14-15 was

Supreme Mistress -- er, Master, TV. Back at 1450, 9955 & 9395 were JBA but modulating, also at 1456 via Georgia SDR (Glenn Hauser, OK, WOR)

** U S A. 9955, June 18 at 1443, no signal from WRMI, off early? But 9395 is only JBA carrier. 15770 is better as usual. 9955 is supposed to be on until 1500, or is it 1600, self-contradictory skedgrid (Glenn Hauser, OK, WOR) see also SOUTH CAROLINA [non]

** U S A. 13845, June 13 at 2205, NO signal at all from WWCR-2, supposed to last until 7 pm CT with DGS/TUN, off? Even with K=6, 9980 & 9350 are blasting in as usual. I see that in its program skeds, WWCR *still* misconverts the difference between CT and UT as 6 hours instead of 5! Go by CT which is correct as CDT (Glenn Hauser, OK, WOR) see also SOUTH CAROLINA [non]

** U S A. 5980, June 17 at 0638, JBA carrier, WWCR leapfrog mixing product since despite Tuesdayness, 5890 is on with S9+35/40 of dead air direct, across the fulcrum on 5935 (Glenn Hauser, OK, WOR)

** U S A. 15150, June 15 at 1456, S9+25 of dead air from WMLK, prior to s/on? No, still open carrier at 1518 direct (Glenn Hauser, OK, WOR)

** U S A. 1490, June 17 at 0646 UT, ``radio, 93.5`` mentioned. WTFDA FMDB shows 4 stations with 93.5 translators, in NC, NY, KY --- and most likely the closest, KDMO in Carthage MO. NRC AM Log also has KDMO as ``Music Radio 93.5`` (Glenn Hauser, OK, WOR)

** U S A. 91.5, June 12 at 1655 UT, mono low-key music and undermodulated but not really hummy, no doubt KSNS Medicine Lodge KS; 1802 just missed weather from ``staff meteorologist``, back to gospel music. Occasional $tereo icon flashes from DX CCI on caradio (Glenn Hauser, OK, WOR)

** U S A. Finally a decent sporadic E FM DX opening, June 14 at 2340 UT when I start tuning the caradio in garage with vertical fender antenna, until mostly gone and I quit at 0125 UT June 15.

After many `openings` at MUFs just a little too low, and/or DX paths a little too far away. Plenty signals now, but few VG for any length of time, lots of fading and CCI from other DX and/or fringers with same kind of reception. Four Es states for sure, MD, WV, VA, NC.

Main reference is the WTFDA FM Database, of course. Except for 91.5 & 90.3, never got anything below 92 MHz full of mostly gospel huxters around here, with only `open` frequencies, but with ACI, 89.5, 89.9, 90.3, 90.7, 91.3, 91.9.

All times strictly UT! kW powers are same H&V u.o.s. PTA = probable target area. Distances are city-to-city from distancefromto.net, not site to site, the last entry xxxx/xxxx km/statute miles with each log. A distance does not imply more certainty than otherwise.

For those unfamiliar with my approach to FM DXing, I do not count stations, states or anything, and make no claims to 100% accuracy. Some purists would insist on labeling some of these tentative; I am only interested in exploring what`s out there, after as much research as feasible. Suggestions and correxions welcome.

June 14:

94.5 at 2340 UT, $tereo, far-right talk, quick fadeout, this?
WPTI 94.5 EDEN NC 100.0 kwH/91.0 kWV 268.0 m 36-16-33 79-56-25 HD 1E3A - 'KFJC' 945 WPTI Your News, Talk & Sports Station TALK 94 POINT 5 55754 --- see also at 0008 below 1618 km/1005 stmi

100.3 at 2344, weak rock, fades; another unID at 0010 below

101.3 at 2346, ``Today`s Best Country, K-101``. Nothing fits from VA/NC/WV target area, so likely this, not normally heard:
KMCO 101.3 WILBURTON OK 100.0 kW 188.0 m 34-59-13 95-42-10 2FF2 KMCO 101.3 This is today's country K-101 FM 37777 284/177

93.5 at 2350, after national adstring,, ``24 hour rock `n` roll, -FBY``:
WFBY 93.5 BUCKHANNON WV 16.0 kW 127.0 m 38-58-11 80-01-58 620E CLASSIC ROCK FBY 93.5 // WCLG-FM 100.1 26143 1577/980

94.5 at 2352, $ praise music f/in.

94.5 at 2355, NWS tones, Severe T-storm warning for SE Virginia counties, including Lancaster, mentions Wakefield, which is a small town east of Richmond, so:
WRVQ 94.5 RICHMOND VA 200.0 kW! 109.0 m 37-24-15 77-18-55 HD13BE Title & Artist on Q94 CONTEMPORARY HIT RADIO Q-94 11963 1817/1129

97.3 at 2359, CCI including ``Number one for New Country, 97-3`` surely this, and my favorite call letters:
WGH-FM 97.3 NEWPORT NEWS VA 74.0 kW 120.0 m 36-57-47 76-24-42 HD 999A Title & Artist COUNTRY 97.3 THE EAGLE 72102 1910/1187

UT June 15:

94.9 at 0006, Virginia ad, CCI, ``The Sound of Now for your weekend, 94.9`` -- maybe program title rather than station slogan, most likely this:
WPTE 94.9 VIRGINIA BEACH VA 50.0 kW 152.0 m 36-48-37 76-16-59 HD 7E36 94.9 The Point Artist/Title Adult Hits HOT AC 94.9 FM THE POINT 64004 1951/1212

94.5 at 0008, far-right talk, $, about `No Kings`, so WPTI Eden NC as above at 2340; Rock CCI presumed WRVQ as above

100.3 at 0010, praise music; another unID above at 2344

100.7 at 0011, talk about spiritual life, tough with ACI from local 100.9, mention Carolina, Good Feet Store, in Chapel Hill and other NC locations, therefore:
WRDU 100.7 ROCKY MOUNT NC 14.0 kW 314.0 m 35-49-54 78-08-49 HD 11EE 1007WRDU Song/Artist WRDU Rocks Your Night CLASSIC ROCK WRDU FM 100.7 74125 1800/1118

104.3 at 0014, rap music $. Closest format fit in PTA is:
WFXK 104.3 BUNN NC 100.0 kW 299.0 m 36-02-20 78-03-45 HD 643C Ads - www.FOXY Rhythm and Blues URBAN AC FOXY 107-104 24931 1759/1093

104.5 at 0017, ``mall in the heart of downtown ---field``; 0018 ``southern West Virginia``, so:
WHAJ 104.5 BLUEFIELD WV 93.0 kWH/62.0 kWV 472.2 m 37-15-05 81-11-20 CONTEMPORARY HIT RADIO J-104 504 1484/922

104.7 at 0020, CCI, NWS flood warning, phone 819-2495, Wakefield mentioned like on 94.5 WRVQ above, so:
WPZZ 104.7 CREWE VA 100.0 kW 299.0 m 37-10-15 77-57-16 7EE7prsise 104.7 praiserichmond Rhythm and Blues URBAN GOSPEL PRAISE 104.7 321 1758/1093

90.3 at 0024, $ soft praise? music, CCI; local KHEV Fairview OK in mono, only 490 watts seems missing. Several low-power religious in tri-state PTA

94.5 at 0027, ``you are listening to The Weekend``, CCI. Show title correlates with WPTI Eden NC as in first log at 2340 above

94.1 at 0030, baseball, in mono, Padres vs Diamondbacks, ESPN, i.e. San Diego vs Arizona - was not aware of a separate opening from the west, but hard to believe this would be on any station to the east - unless on full ESPN network? Coast-to-coast double hop should have been possible at either end! 0032 ad for Kubota tractors!, CCI.

IRCA and NRC have BB sports networx, but nothing fits for this. Checking team sites, it is Padres at Diamondbacks starting at 2315 UT. FWIW, by geography maybe one of these, breaking format, but 97.3 in San Diego definitely below:
KMYI 94.1 SAN DIEGO CA 77.0 kW 210.0 m 32-50-17 117-15-00 HD 1228 Star 94.1 Title & Artist Adult Hits HOT AC STAR 94.1 58821 1810/1124
KRDE 94.1 SAN CARLOS AZ 4.7 kW 1039.0 m 33-17-37 110-50-09 No Program Type or Undefined COUNTRY THE RIDE 94 37577 1195/742

94.5 at 0035, $ rock, CCI talk, ``Romeo on the Radio``, 0037 national ads, Audacy careers; 0044 DJ Jay Mac, most requested line. See this, he dates back to KIMN Denver in 1963:
https://mostrequestedlive.iheart.com/alternate/amp/dj-jay-mac-bio/
Probably WRVQ Richmond VA as above

95.5 at 0045, SFX, CCI, including vuvuzelas. Might have been bleed from local 95.7 KXLS

99.5 at 0049, Week?Street Ice Center, skating cooloff in summer, C&W; it`s in Tulsa! ``WeStreet Ice Center 4.5150 Google reviews · Ice skating rink in Tulsa, Oklahoma``, so only semi-local KXBL Henryetta OK 100 kW 201/125

106.1 at 0057, ``106-1 The Twister, iHeart`` so only KTGX Owasso/Tulsa OK, 100 kW 182/113

91.5 at 0059 classical, WBJC Baltimore ID; has been CCI with KSNS Kansas for long time. So:
WBJC 91.5 BALTIMORE MD 50.0 kW 152.0 m 39-23-11 76-43-52 HD 5838 WBJC Composer and Title MARYLAND'S CLASSICAL MUSIC STATION 3654 1890/1175

97.3 at 0119, baseball, Padres vs Diamondbacks, sounds like same coverage as on 94.1 earlier at 0030, but not audible now at same time. This is surely the San Diego sports station:
KWFN 97.3 SAN DIEGO CA 38.0 kW 152.0 m 32-43-48 117-05-06 HD 4AA7 97.3 The Fan The FAN, San Diego's Only FM Sports Station 97.3 THE FAN 30832 - but it also has FIVE co-channel boosters, ranging from 0.67 kW in La Jolla to 10 watts in San Marcos; in between, Encinitas, Escondido, Ramona. Calls like KWFN-FM1, etc. See:
https://www.mlb.com/dbacks/schedule/broadcast-affiliates
1810/1124

101.7 at 0122, jazz, seems mono, 0124 religious talk. Searching on jazz format, two hits:
K269EK of KSUI 91.7 101.7 DUBUQUE IA 0.218 kW along with classical; and
P4-- 101.7 ORANJESTAD ARUBA ABW 1.0 kW SMOOTH JAZZ POWER 101.7 FM Papiamento -- I don`t think so! rather nearby but not always audible:
KREJ 101.7 MEDICINE LODGE KS 50.0 kW 145.0 m 37-14-00 98-39-44 3D55 101.7 FM RELIGIOUS TEACHING KEEPING READY EXPECTING JESUS 21791 118/73

This is a sibling station to 91.5 KSNS - or vice versa? Some *very* recent developments explained confusingly on own website:

https://www.krejksns.org/

``Sale Update June 4, 2025

The FCC approved the sale May 28, though the sale is not complete at this time. We are preparing the stations and getting ready for the transfer of ownership.

Sale Progress June 10, 2025

Ed C. of Smile FM has been working with Larry Martin to address the distortion and buzzing that has plagued the KREJ signal for several months. We are pleased to announce that we now have a good, noise-free signal on KREJ!

Also, they have switched KREJ and KSNS back to their original frequencies. KREJ programming is now broadcast on 101.7 FM and KSNS programming is on 91.5 FM. 101.7 FM remains on reduced power, as that problem is much harder to fix.

KSNS is now using Smile FM programming. Tune in 91.5 FM and check it out! And don't forget to visit Smile FM to donate and show support for our new owners.

Facebook logo Find Us on Facebook Contents © 2005 - 2025 KREJ and KSNS Christian radio stations. All rights reserved.``

Smile FM = 88.1 in Lansing MI - no call on website!!
https://www.smile.fm/

WTFDA slows it`s 4 in MI, all on 88.1, with much more ERP vertical than horizontal; WHYT GOODLAND TWP, WSMF MONROE, WLGH LEROY TWP, WSFP HARRISVILLE, all mono and:
CONTEMPORARY CHRISTIAN SMILE FM MICHIGAN'S POSITIVE HITS
[FYI: I Have NOT DXed these] (Glenn Hauser, Enid OK, WOR)

** VANUATU [and non]. 9960, June 13 at 0620, R. Vanuatu music S5/S9. Has been quite regular and reliable lately, not always relogged. No distraxion from 9955 as WRMI is OFF (Glenn Hauser, OK, WOR)

UNIDENTIFIED. 9125.2 USB, June 13 at 0617, intermittent one side of two-way in tonal language, maybe Chinese JBA (Glenn Hauser, OK, WOR)

UNIDENTIFIED. 9340.43, June 13 at 0618, S6/S7 open carrier, as often around here/then, but 9330 WBCQ is JBA only S4/S5, so unlikely out of that (Glenn Hauser, OK, WOR)

UNIDENTIFIED. 11525-11532 & 11545-11552 approx., big buzzers at S9+10, relatively narrowband, what? (Glenn Hauser, OK, WOR)

UNIDENTIFIED. 97.3, June 12 at 1713 UT sports talk, mention ESPN, CCI, mention ESPN 880 New York, ID caught ``97.3`` only. No OK or KS 97.3s are sports. Es opening has been almost to OK from the east, but nothing else heard now. WTFDA FMDB has a few Fox Sports on 97.3, leaving very few possibilities of others beyond translators: WENJ Millville NJ 50 kW, which is definitely ESPN; or WRNW Milwaukee WI 15.5 kW, no mention of ESPN on website. Soon fades to nothing (Glenn Hauser, OK, WOR)

UNIDENTIFIED. 97.3, June 16 at 0408, bandscanning for possible Es DX as on DX map opening from the west, amid CCI, ID sounds like ``N-97, 97.3`` - but searching on N-97, N97 and N 97; M-97, M97 and M 97 in WTFDA FM Database gets no hits. Then I display all 200+ USA listings and see if anything similar in the slogans column - no! Ideas? (Glenn Hauser, OK, WOR)

UNIDENTIFIED. 100.3 FM, June 13 at 1957 UT, dead air in mono near downtown Enid; idle RF feeder? (Glenn Hauser, OK, WOR)

UNIDENTIFIED. 104.3, June 12 at 1708 UT, dead air in mono. Probably something local; there are only three real 104.3s in OK & KS, none of them likely. Gone at my next session check 1802 (Glenn Hauser, Enid, WOR)